

## **THE CHANGING ARSENAL OF WEED CONTROL**

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### **Abstract**

With the advent of glyphosate-resistant (GR) weeds farmers have had to change their weed management strategies. These changes include using pre applied herbicides, going back to utilizing hooded applications again, moving to a more glufosinate-based weed management system and possibly employing cover crops to help manage weeds.

Herbicides like Cotoran, Caparol, Reflex and Prowl are now used on virtually every cotton acre in the Mid-South (Norsworthy et al 2012.). Though pre applied herbicides can be inconsistent they are a key ingredient in a weed management system to manage GR Palmer amaranth. Moreover, they are absolutely necessary in glufosinate-tolerant cotton to provide an additional herbicide mode of action to help delay Palmer from becoming resistant to glufosinate on top of glyphosate resistant.

Utilizing hooded applications again are also now imperative to consistent cotton weed control. Hooded application of herbicides like paraquat or a diuron plus MSMA are needed to expose GR Palmer amaranth to herbicide modes of action that can delay the onset of further herbicide resistance from developing.

Some producers have moved from a glyphosate-based weed control systems to a glufosinate-based system. The reason for the switch is that glufosinate can provide over-the-top control of Palmer amaranth that has escaped pre applied herbicides. Producers should note that Palmer amaranth developing resistance to glufosinate is very likely if they over rely on glufosinate.

Finally some cotton producers are incorporating cover crops as a component of their weed management system. Cover crops such as cereal rye, vetch or crimson clover can help curtail GR Palmer germination due to shading the soil.

Weed management is changing in cotton. Some producers have moved to a glufosinate-based weed management system. Regardless if the system is a glyphosate or glufosinate-based system producers still most incorporate a pre applied herbicides, hooded applications and cover crops can help provide control of GR Palmer in an integrated pest management approach.

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